



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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December 22, 1993

Mr. Roy Benson  
Mine Manager  
Geneva Steel  
P.O. Box 2500  
Provo, Utah 84603

Re: Review of Permit Amendment, Geneva Steel Company, Iron Mountain Mines  
M/021/008, Iron County, Utah

Dear Mr. Benson:

The Division has completed its review of your latest technical deficiency response received August 23, 1993. We apologize for the unforeseen delay in completing our review. Previous approved mine plan complexities and Geneva's reformatted response have made it quite difficult and frustrating for us to review this response in a timely manner. After reviewing the information, the Division has the following comments which will need to be addressed before tentative approval may be granted. The comments are listed below under the applicable Minerals Rule heading.

R647-4-101 Filing Requirements and Review Procedures

The August 1993 submission is a major revision of Geneva's initial submission. This new submission contains portions of the old information, omissions of entire sections, and the creation of new sections with a different format and perspective. The degree of revision makes a majority of the Division's last review comments null, simply because a majority of the information commented on is no longer contained in the submission. The format of the August submission does not allow for easy identification of information added (or deleted) from the previous submission. In effect, the revision has made this review more like a first review identifying deficiencies, rather than a secondary review refining or clarifying information in the previous submission. Because of this major overhaul of the submission, our comments will include: (1) restatements of issues which were raised in the previous review which have not been responded to; and (2) comments on new issues which the revised submission has raised.

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*To assist us in the review of your future responses, please submit a letter containing your response to each review comment, by its respective rule number. In your letter, please refer to the page number and section of the revised plan, where our question has been addressed. A redlined text highlighting the new information being inserted into the body of your permit application is also requested. The Division asked that this type of procedure be followed as part of our March 1993 review. Apparently our request was misunderstood, making it more difficult and time consuming to perform this review. This process will greatly enhance our ability to locate the changes and review the document in a timely manner.*

**R647-4-105 Maps, Drawings & Photographs**

**105.1 Topographic base map, boundaries, pre-act disturbance**

The latest Pre-Act Disturbance map (IM-0100-9), does not contain the information previously requested in our March 13, 1993 review letter. The operator has provided a map entitled Pre-Act Disturbance (IM-0100-9). This map depicts areas which are either pre-Act disturbance or post-Act. Some of the areas labeled as pre-Act include areas that are currently being used by Geneva. These areas should be labeled Redisturbed Pre-Act. For example several of the roads, pads, pits and dumps, in the Iron Mountain Mine area have been redisturbed since passage of the Act. The Division requests that you revise this map, and label the pre-Act redisturbed areas. Please include an acreage breakdown by area and category. *All areas indicated as post-Act or pre-Act redisturbed will require either reclamation or a variance.* Your Reclamation Treatments map(s) should indicate what reclamation techniques/plans are proposed for each portion of the overall site. (HWS)

Please label features such as pits, dumps, etc., on all drawings in the IM-0100-3a series. Please label the mine features on drawing IM-0100-3, sheet 4 of 6. Also, please label any undisturbed areas within disturbed areas. Drawing IM-0100-3, sheet 6 of 6 is believed to contain such an area within the mine waste dump. (AAG)

**105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)**

The operator has provided the Division with a series of maps entitled Five Year Mine/Reclamation Plan IM-0100-3. These maps are pattern coded but refer to various mine permits that Geneva has acquired. The maps do not directly indicate the type of reclamation treatment to be applied in a specific location. A



reclamation chart has been provided in the plan, entitled "Reclamation Summary Chart", we assume that the designations on the maps refers the reader back to this chart. There is no direction in the text or on the maps that would direct the reader to make this conclusion. We suggest placing the reclamation treatments (e.g. 12" topsoil, fertilizing, mulching and seed mix #3) on the map key as a means of simplifying the intent of the operator for reclaiming specific areas.

The idea of labeling areas which were permitted under previous permits, is a good one. We advise leaving this designation on the maps due to the fact that each area was approved somewhat differently from the rest. Some of the areas which have been disturbed recently by Geneva may fall outside of the boundaries of the originally approved permits. Geneva needs to designate these areas appropriately on the maps provided and reclaim them as new areas, to be addressed under this permit amendment. (HWS)

The Division was unable to find several maps indicated in the Plan's Drawing Index. These maps include: IM-0100-7, IM-0101--1, and IM-0101-3. Please provide copies of these maps to insert into the application. (HWS)

The Division found several discrepancies exceeding 0.5 acres in the acreages shown on the series of drawings labelled "IM-0100-3 Five Year Mine/Reclamation Plan". On sheet 3 of 6 of this series, the figure of 1.99 acres is shown for an area of the Iron Mountain Dump Slope. Division measurements show this area to be approximately 0.86 acres. On sheet 6 of 6 of this series, 7.94 acres is shown for an area of the Mt. Lion Pit Bottom. Division measurements of this area yield approximately 4.83 acres. It is assumed that the 7.94 figure was arrived at by including the adjacent area of Mt. Lion Pit Benches. This same sheet identifies 8.76 and 17.01 acres of Post Mine Use. Their combined total is 25.83 acres. Division measurements of the areas coded for Post Mine Use on this sheet yield a total of 33.84 acres. Please verify the figures for these areas and provide and explanation for these discrepancies. (TWJ & AAG)

#### **R647-4-106 Operation Plan**

##### **106.8 Depth to groundwater, extent of overburden, geology**

No supplemental site specific groundwater depth information was presented to identify the depth to groundwater in the Chesapeake/Excelsior or Tip Top mine areas. All depth information is estimated and/or inferred from older existing data that was generated under previous permit applications within the general area.



Because mining has been completed in both of these new pits and no groundwater resources were intercepted (or presumably impacted), the Division will not require additional information under this section for these areas.

The Division is uncertain if there have been any changes made to Replacement map IM-0100-11, Ground Water Contour Maps, Sheets 1 and 2. The only evident change is a noticeable lightening of the ground water contour lines, which now makes them hard to distinguish from the topographic contour lines. Sheet 2 of 2, has an large blob of printer ink/toner which obscures a significant portion of the ground water contour lines lying between the Duncan and Burke pits. If the latest maps have no changes other than those we have noted, then we will retain the cleaner ( April/92) copies as part of the permit application and discard the most recent replacements. Please advise, if there are other reasons to retain these 2 replacement sheets. (DWH)

#### **R647-4-107 Operation Practices**

##### **107.1.12 Disposal of trash, scrap, debris**

The Division comment provided in the previous review requesting a description of the treatment/disposition of trash and debris generated during operations was not addressed in this submission. Geneva's response is that Rule R647-4-103 does not require an operator to provide information addressing the requirements of R647-4-107 Operation Practices and R647-4-111 Reclamation Practices as part of the application process. It is Geneva's opinion that they must only conform and operate according to the practices described under those sections. It is true that these two rules are not formally included as part of the list under R647-4-103.

It is our opinion that the statute and rules allow the Division to make reasonable requests for pertinent permitting information when it is determined that the mining and reclamation plan is unclear, or does not contain sufficient information to make appropriate findings of completeness/compliance. Consequently, our request for this information still stands. An explanation of how and/or where this information (for the new and older but still active pits), has been addressed under previous permits will satisfy the requirements under this section. (AAG/DWH)

##### **107.2 Drainages to minimize damage**

The Division's previous comment has not been addressed and remains outstanding. The previous application indicated on page 36, that impoundments



and drainages will be adequately diked with rip-rap. Please identify those locations (in the text and on appropriate drawings/maps) that will receive these treatments and describe their general design. Also provide the supporting design criteria used (eg., design storm, watershed size, etc.). (AAG/DWH)

#### **107.3 Erosion control & sediment control**

The Division's previous comment has not been addressed. This information is still requested. The application should contain a section describing the erosion and sediment control techniques/methods being utilized to minimize onsite erosion and sediment loss. The process/surface facilities map(s) should identify the type and location of temporary or permanent erosion control structures presently being used as part of Geneva's active operations (eg., load-out, crushing and staging areas, roads, dumps, etc.). (DWH)

#### **107.6 Concurrent reclamation**

The Division's previous question concerning contemporaneous reclamation was not addressed. Will Geneva be performing any type of reclamation in the next five years, at this site? The rules require that areas reclaimed when no longer needed. Several areas under the Geneva permit have been mined out. Please provide the Division with a time frame for implementing the reclamation of these sites and their locations. Concurrent reclamation can benefit the operator by reducing the long term reclamation bonding liabilities and by demonstrating compliance with this regulatory requirement. (HWS)

#### **R647-4-108 Hole Plugging Requirements**

See comments under variance section R647-4-112.

#### **R647-4-109 Impact Assessment**

##### **109.1 Impacts to surface & groundwater systems**

In our March 15, 1993, review letter, the Division asked for more detailed ground water information. We suggested initiating a pit water quality monitoring program to help establish baseline conditions as they presently exist, and to show any trends/changes that may be developing as mining progresses. Geneva has acknowledged that a "baseline" groundwater quality study has not been performed in the area and believes it would be impossible to accurately perform, given



existing conditions. On page 19 of the latest submission, Geneva states that information in this section was not compiled for a re-evaluation and repermitting of prior permitted areas, but only to serve as a basis for understanding any newly permitted areas.

Geneva has added a new ground water section that only applies to the new areas being added to the permit application. On page 26-27 of the latest revised application, it states that no impacts to groundwater are expected. The application also states that existing data demonstrates that there has been no affect on water quality on previously permitted areas. It also states that groundwater recharge in the area does not appear to be affected by Geneva's mining operations on previously permitted areas. Geneva's basis for no groundwater impact for newly permitted areas is based upon their opinion that there is no current indication of any groundwater impact on previously permitted areas, and such *was already determined by the Division of Environmental Health, (now DEQ)*. Geneva also indicates that they are currently under the notification/application process with DEQ and believe that their compliance with DEQ's groundwater discharge and stormwater regulations should satisfy any DOGM concerns regarding potential impacts to groundwater from nearby permitted areas.

It is our opinion, that the limited extent of groundwater data provided in the application, does not support or substantiate the assumptions and opinions made, regarding the groundwater resources and potential mining-related impacts associated with this area. However, we recognize the primary regulatory authority of the DWQ for protecting the surface and groundwater resources of the State, and will defer to their final decision and regulatory requirements in this regard.

We recently contacted the Utah Department of Environmental Quality, Division of Water Quality (DWQ) to confirm the status of Geneva's permitting efforts with that agency. We were informed that their office has no record of receiving any recent applications for a Groundwater or Stormwater Discharge Permit from Geneva Steel for their ongoing Iron Mountain mining operations. Until we receive confirmation that appropriate applications have been filed with DWQ, our previous requests for supplemental information to substantiate Geneva's ground water projections will apply. (DWH)



#### **109.4 Slope stability, erosion control, air quality, safety**

The Division previous review comment regarding slope stability was not responded to in this submission. The submission states in section 10, page 27, that slope stability impacts for newly permitted areas are expected to be minimal and refers the reader to section 12.3. Section 12.3, page 37, describes reclamation of pits and dumps, but does not include any discussion of slope stability. Please provide additional information describing or substantiating the stability of the dump slopes and pit highwalls upon final reclamation. (AAG)

#### **R647-4-110 Reclamation Plan**

##### **General Comments:**

Section 12.2 - Prior Permitted Area Reclamation Plan Summaries, should include a list of the areas covered by each individual permit. A list would help clarify which individual features will receive which reclamation treatments. Please list the features included under the old permit number which Geneva now controls in the appropriate portions of this section. (AAG)

Page 35, section 12.2.4, S/021/010, Excelsior/Chesapeake - The application indicates this mine area was permitted under a Small Mining Operation application and is subject to the reclamation standards prescribed under rule R647-3-109. If the disturbed area associated with this mine site had not exceeded 5 acres, this would be true. However, mining activities associated with this area expanded to @7.5 acres. Consequently, the performance standards under rules R647-4-107, 110 and 111 became effective/applicable to all of the surface disturbances once the 5-acre threshold was exceeded. Geneva must accordingly achieve compliance with the requirements/standards under these rules. (DWH)

It appears that Geneva wishes to post a reclamation surety for a smaller area contained within a larger, previously approved, permit area. Geneva's recent submission contains a mining and reclamation plan based on a five year mine plan interval. A five year escalation rate and a five year reclamation surety re-evaluation period is required by established Division/Board policy. This policy applies to calculation and projection of the reclamation surety estimate only.

Geneva may propose posting a reclamation surety for those areas to be disturbed over the next five years. However, all of the areas to be disturbed (i.e., areas to be disturbed over five years plus areas to be disturbed over the life-of-the-mine



beyond five years) must be clearly defined within established permit boundaries and all appropriate permitting information covering these areas, must be included as part of the permit application. Before supplemental expansion or development beyond the approved 5-year mining and reclamation plan (and "reclamation surety estimate") occurs, Geneva must re-evaluate the Iron Mountain mine surety to ensure that all new disturbance and old disturbance will be adequately covered. If changes to the existing approval will occur, then Geneva must submit a permit amendment and receive Division approval prior to implementing those changes. (HWS/AAG)

#### 110.2 Roads, highwall, slopes, drainages, pits, etc. reclaimed

Geneva did not provide a specific response to our previous request for information regarding anticipated pit water levels and water quality when mining ceases. The question of long-term public health and safety protection measures was also not addressed.

It is assumed that a response was not provided because the majority of the pits are either pre-law or were approved under earlier permits. It is our opinion that the statute and rules allow the Division to make reasonable requests for pertinent permitting information when it is determined that the mining and reclamation plan is unclear, or does not contain sufficient information to make appropriate findings of completeness/compliance. Consequently, our request for this information still stands. A explanation of how and/or where this information (for the new and older but still active pits), has been addressed under previous permits will satisfy the requirements under these rules.

The Division's previous review comment which requested modification of the appropriate sections of the reclamation plan to clarify the *scarification* requirement, was not specifically addressed. On page 36, section 12.3, item 2, the statement is made that compacted areas will be ripped by dozer to a depth of 1-2 feet. This statement conflicts with other statements made in the same paragraph regarding general scarification of the Burke Pit Road, etc. Please identify which areas will be ripped by name and or map designations. Please make this clarification in the plan narrative and also describe/define the other types of reclamation techniques/methodologies (e.g., slope stabilization, mulching and crimping, seeding, etc.) to be used at the mine site. For example, Mulching may be described as "In areas to receive mulch which have a slope of 3h:1v or less, hay mulch will be applied at a rate of 2,000 lbs/acre using a power mulcher towed



behind an agricultural tractor. In areas steeper than 3h:1v which cannot be reached by the power mulcher, the hay will be spread by hand at the same application rate." (HWS/AAG)

The Division's previous review comment regarding reclamation of the borrow area next to the Blowout Pit was not responded to in this submission. Please provide a description of the reclamation treatments for this area. This area is not included in the reclamation Summary Chart or Reclamation Calculation Table. Please explain this omission. (AAG)

The Division's previous review comments regarding reclamation of waste dump slopes in the Chesapeake/Excelsior and Tip Top areas were not responded to in this submission. Please provide a description of the dump slope angles and how the slopes will be stabilized for seeding. (AAG)

The Division's previous review comment regarding reclamation of the Future Mountain Lion Dump area was not responded to in this submission. Please provide the proposed reclamation treatments for this proposed dump. This dump is shown to be within an existing permit boundary, however our file records fail to confirm that the future dump proposal was ever formally approved by the Division. (AAG)

The Division's previous review comment regarding reclamation of the railroad spur and spur expansion was not responded to in this submission. The Reclamation Summary Chart in combination with the IM-0100-3 drawings gives an indication of the reclamation proposed for this area; however, no written description of reclamation for this area was provided. Please provide a description of the reclamation treatments proposed for the existing spur and spur expansion. (AAG)

Geneva indirectly responded to the Division's previous review comment regarding reclamation of the Lean Ore Stockpile and Ore Handling and Maintenance Shop areas. Page 32 of the submission describes reclamation of the Lean Ore and Overburden Dumps, but it is not clear where these items are included in the Reclamation Summary Chart. Please indicate which areas are included under each heading used in the Reclamation Summary Chart. (AAG)



### **110.3 Description of facilities to be left (post mining use)**

According to the variance section, Geneva requested a variance for the FAA road leading to the radio tower near the Tip Top area only. Sheet 4 of 6 of the IM-0100-3 series does not include the entire length of the FAA road. The area of the FAA road between sheet 3 of 6 and 4 of 6 is also not accounted for. Sheet 3 of 6 shows a 0.33 acre section of FAA road as having a post mine use and only partially reclaimed, yet this section is not coded as Post Mine Use. It appears that the FAA road acreages shown on the drawings are the pre-reclamation acreage. The acreage of FAA road area to be reclaimed does not appear in the Reclamation Summary Chart or the Reclamation Calculation Table. Please explain the omission of the FAA road sections from the drawings and reclamation plan. (AAG)

The drawing series IM-0100-3 Five Year Mine/Reclamation plan includes several road sections under the Post Mine Use category which seem to conflict with the variances requested. Sheet 2 of 6 of this series shows 2.82 acres of road leading to the Blackhawk Lean Ore Pile. Sheet 3 of 6 of this series also shows a section of the same road beginning from the Load Out Area intersection to the same Lean Ore Pile. Please explain the Post Mine Use designation for this section of road. Sheet 3 of 6 also shows a road which forks around the Surge Pond area as having a Post Mine Use. Please explain why both of these road sections are needed for access to the FAA road. Sheet 6 of 6 of this series shows a road from south of the Ore Handling Area ending at the Comstock Dump as having a Post Mine Use. This is inconsistent with the variance section of the submission. Please explain and justify the Post Mine Use for this road section. (AAG)

## **R647-4-111 Reclamation Practices**

### **111.1 Public safety & welfare**

#### **1.12 Disposal of trash & debris**

The Division's previous review comment requesting information describing the equipment and facilities to be buried onsite was not responded to in this submission. As in the comment under R647-5-107 above, Geneva states that they will comply with all requirements of R647-4-111, stating that this information is not required to be included under R647-4-103. In order for the Division to make a determination/finding of operator compliance with the requirements of this section, the requested



information must be included as part of this permit application. Our previous request must be addressed. (AAG)

#### **111.6 All slopes regraded to stable configuration**

On page 37, of the plan, Geneva indicates that steep dump slopes at the Tip Top, Excelsior/Chesapeake sites will be reclaimed by pushing fines material over the top of the dumps, then reseeding. Unless the operator can demonstrate existing dump slope stability and revegetative success, these slopes will need to be stabilized for revegetation utilizing a proven slope stabilizing technique (e.g., excelsior netting, jute matting, etc.). The Division will require Geneva to meet the 70% revegetation standard on these slopes. (HWS)

On page 32, section 12.2.2 (permit M/021/005), item 2, Geneva indicates that a maximum 37° slope angle will be allowed for the Lean Ore and Overburden Dump slopes. The Division requests clarification on exactly where these slopes are located? Please identify these areas on the appropriate plan map(s). It is our understanding that these are active post-Act dumps. Angle of repose (i.e., 37°) slopes are not conducive to successful revegetation efforts. The Division will require Geneva to achieve the 70% revegetation standard on these slopes. To accomplish this, Geneva may need to regrade these outslopes to a maximum of 2h:1v or 27° upon final reclamation to increase stability and enhance revegetation success. (HWS)

#### **111.9 Dams & impoundments left self draining & stable**

The Division's previous review comment was not addressed under this section. Will the Tip Top or Chesapeake/Excelsior pits impound water upon final reclamation? If so, what is the anticipated water quality? Assuming favorable water quality, will wildlife have reasonable access to this water? (DWH)

#### **111.12 Topsoil redistribution**

The Division's previous review comment regarding information describing the source of additional soil to be used in the Chesapeake/Excelsior area during reclamation was not responded to. Page 36 of the August submission refers the reader to drawings IM-0101-6 and IM-0101-8 for descriptions of the borrow areas for topsoil. These drawings show the topsoil borrow area adjacent and west of the Blowout pit (1.68 acres) and the Ant Hill area (@40.59 acres). Please confirm or negate this. (AAG)



The Division's previous review comment regarding the acreage discrepancy for the Anthill area was not responded to. Drawing IM-0100-3 Five Year Mine/Reclamation Plan, sheet 5/6, includes a 1.64 acre area within the larger Ant Hill area. Drawing IM-01001-8 shows an area boundary around approximately 40.59 acres of the Ant Hill area. What is the projected disturbance for topsoil salvage in the Ant Hill area? What is the projected volume of topsoil to be salvaged from this area under the reclamation plan? What areas of the mine operations (name, acreage, volume) will receive the topsoil salvaged from the Ant Hill area? (AAG)

#### R647-4-112 Variance

**General Comment:** The comment requesting that areas included in variance requests be identified on the reclamation treatments map has not been addressed (see DOGM letter, March 15, 1993, under R647- 4-111(13)). The Division would like to have a visual representation of all areas under this permit to be placed under a complete or partial variance. (HWS)

#### **R647-4-108 Hole Plugging Requirements**

The Division's previous response granted a variance to Hole Plugging Requirements using the wrong rule number. For clarification purposes, the variances granted and their correct rule numbers are listed again.

The Division will grant a variance for R647-4-108 Hole Plugging Requirements for the plugging of any drill holes which are inaccessible because they have been mined through or are under water. This variance will not apply to drill holes which are accessible before, or at the time of final reclamation. (AAG)

#### **R647-4-111 Reclamation Practices**

Page 37, Variances, #1 - The application indicates that KSUB radio has requested the use of an area in the Tip Top Pit area for use as a storage area. The pit area to be affected by this request must be clearly identified along with a letter from KSUB confirming/outlining their interests and intentions for the area. KSUB's commitment to assume the responsibility and liability for continued use of this area, must also be acknowledged in the letter. (DWH)



**R647-4-111(1.15) Reclamation Practices - Highwall Berms/Barriers**

In the last review, the Division requested additional information in order to consider this variance request for the Comstock/Mt. Lion pit area. Geneva provided two statements in Section 12.2, page 37, in response to that request. The Division still requires the additional information of (1) the specific area which would be affected by the variance, (2) justification for the variance, and (3) alternate methods or measures to be utilized consistent with the Utah Mined Land Reclamation Act (refer to R647-4-112 of the Minerals Rules). (AAG)

**R647-4-111(6) Reclamation Practices - Slopes**

On page 37 - item 2, of the latest submission, Geneva requests a slope variance for the dump slopes associated with the Excelsior/Chesapeake and Tip Top areas. This variance request is somewhat vague. Is Geneva requesting a variance to regrading the dump slopes to achieve slope stability, or just a variance to the 70% revegetation standard, or both? Rule R647-4-112 requires information describing: (1) the areas affected by the variance request; (2) justification for the variance; and (3) alternate measures/methods to be utilized which are consistent with the Act. Item (3) has not been addressed. This information is usually included as part of the original application before mining begins. Approval of this variance request is presently denied. (HWS/DWH)

**R647-4-111(7) Reclamation Practices - Highwalls**

In the last review the Division requested additional information describing the variance request for highwalls in the Comstock/Mt. Lion Pit. No response to that comment was provided by Geneva in this submission. The Division has examined the permitting records for the previously approved Iron Mountain mine permits and has not been able to locate or confirm Division approval of several of the variances Geneva states were previously granted. Please provide us with copies of the documents which support/confirm the Division's approval of the variances listed on pages 35 and 37 of the revised plan which apply to the older permits. Also please provide the previously requested information to clarify our understanding of your variance request. (AAG/DWH)

On page 37 - item 2, of the latest submission, Geneva requests a highwall variance for the modified pit faces at the Excelsior/Chesapeake and Tip Top areas. Mining has apparently been completed in these two areas. Rule R647-4-112 requires information describing: (1) the areas affected by the variance



request; (2) justification for the variance; and (3) alternate measures to be utilized which are consistent with the Act. This information is to be included as part of the original application before mining begins. Geneva has not satisfied all of these requirements and is now requesting a variance(s) after the fact. Consequently, it is the Division's opinion that a variance for slope angles greater than 45° is not justified. (AAG/DWH)

**R647-4-111(8) Reclamation Practices - Roads and Pads**

The Division will grant a variance for the roadway to the radio tower to remain upon final reclamation. The Division will require that this roadway be reduced to a 20-foot width by recontouring, ripping and reseeding the excess road width. (AAG)

**R647-4-111(13) Reclamation Practices - Revegetation**

Page 37, Variances, #4 - Geneva is requesting a variance from R647-4-111.13 (revegetation standards for Pre-Act disturbed areas). The Division is uncertain which Pre-Act areas associated with the Chesapeake/Excelsior and Tip Top area are to be considered under the revegetation variance? Please clarify so that we may complete our evaluation of this variance. (DWH)

A variance to the 70% revegetation standard will be granted for the highwalls associated with the Tip Top, Excelsior/Chesapeake sites. However, this will not relieve Geneva from broadcasting or hydromulching the recommended seed mixture onto these pit areas. (HWS)

**R647-4-113 Surety**

A number of the comments raised in this review regarding variance requests, acreages, and reclamation treatments will affect calculation of the reclamation surety estimate. For this reason, the Division cannot accurately verify an amount for the reclamation surety at this time.

The area categories used in Geneva's spreadsheet make it difficult to track the reclamation treatments a particular feature will receive. Breaking down the categories into pit benches, pit slopes, pit bottom, pit roads, dump top, dump slopes, dump roads/level, borrow areas, post-mine use, etc. allow for easier tracking of reclamation treatments and easier cross referencing of acreages for features. A copy of a suggested area breakdown for the spreadsheet is attached.



Geneva's estimate states that O & P (overhead & profit) are not included because this project will not be done for profit by the state. We assume this refers to the figures obtained from the Means Building Construction Cost Data. In response, the Division's reclamation surety estimate is to be based on "third party" costs. This means that overhead and profit would need to be included in the estimate. Geneva's estimate includes a factor of  $(\text{equipment rate monthly})/(\text{equipment rate weekly}) = .75$  (Means) What is the justification for this "factor"?

The general spreadsheet format of Geneva's reclamation surety estimate is acceptable, however, there are several unit costs which we feel require comment. The Means references used in calculating Geneva's estimate were for the year 1991, consequently, these values have been modified by the Division using the 1993 Means figures (see below). The corresponding costs from the Means Heavy Construction Cost Data 1993 for the tasks referenced in Geneva's estimate are listed below:

the Means 93 location adjustment factor for Utah is 0.881.

rough grading and scarifying, (029-200-204-3100) scarify subsoil with large commercial 75 hp dozer, Including O & A \$3.05/1000SF, or @ \$133/acre x 0.881 = \$117/acre.

topsoil spreading (exclude mtl costs), (029-200-204-3920) spread topsoil 4" deep, 300 hp dozer, Equipment cost only \$42.18/1000SF, or @ \$1,837/acre x 0.881 = \$1,618/acre.

fertilizer spreading, (029-200-204-4000) spread soil conditioners, alum. sulfate, 1 lb/SY, hand push spreader, Total including O & P \$0.23/SY, or @ \$1,113/acre x 0.881 = \$981/acre. A fertilizer rate of 1 lb/SY equates to 4,840 lb/acre (high for minesite reclamation).

mulch cover, (029-500-516-0350) hay mulch 1" deep, large power mulcher, Total including O & P \$20.50/1000SF, or @ \$893/acre x 0.881 = \$787/acre. This item includes a cost for mulch of \$17/1000SF or \$740/acre. Typical minesite reclamation calls for mulch application rates of 2,000 to 3,000 lb per acre.

seeding (excluding seed cost) (029-300-308-5300) tractor spreader, Total including O & P is \$9.17/1000SF, or @ \$399/acre x 0.881 = \$352/acre.



scraper 32 CY capacity, 657E, self loading, reference (016-400-408-3700) is for a 22 CY scraper and gives \$29.65/hr operating costs + \$1,025/day rental (\$128.13/hr). This does not include the cost of an operator. The Rental Rate Blue Book, 4/93 update, page 9-37, lists the following costs for a CAT 657E P-P scraper: \$275/hr rental + \$94.90/hr operating. Adding in an operator cost from Means 93, Crew B-33D of \$34.56/hr gives a total cost of @ \$404/hr. The total cost for a CAT 637E P-P, 21-31 CY would be @ \$336/hr.

tractor/crawler 700 hp, (D10N dozer), reference (016-400-408-4380) gives \$84.90/hr operating cost and \$3,350/day (\$418.75/hr). This does not include the cost of an operator. The Rental Rate Blue Book, 4/93 update, page 9-40, CAT D10N, U blade, lists \$175/hr rental + \$48.35/hr operating cost. Adding in the operator cost from Means 93, Crew B-10B, of \$34.20/hr gives a total cost of @ \$258/hr.

building demolition (020-600-604-0500) small bldgs, no salvage, steel, total including O & P is  $\$0.21/\text{CF} \times 0.881 = \$0.19/\text{CF}$ .

erosion berms/security berms (022-700-702-0010) cut drainage ditch, common earth, total including O & P is  $\$0.19/\text{LF} \times 0.881 = \$0.17/\text{LF}$ .

ripping (022-200-278-2840) ripping, very hard, 460 hp dozer, total including O & P is \$2.89/CY. Division estimates using the Cat Performance Handbook and the Rental Rate Blue Book, give a ripping cost of \$786/acre for a D9N dozer ripping at 0.5 mph.

regarding- Geneva's reference of (025) does not correspond to a Means category. Division estimates using the Cat Handbook and Rental Rate Blue Book give a cost of \$0.44/CY for regrading material with a D10N, U blade, 150 foot push.

the current escalation factor used by the Division to project cost estimates into the future is 1.42%

Using the unit costs listed above, the information in the August submission, and several Division assumptions, we have calculated a preliminary reclamation cost estimate. The preliminary estimate is for \$1,134,000 in 1998 dollars. This figure may increase or decrease as a result of the additional information requested in this review letter. (AAG)



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Geneva Steel Review  
M/021/008  
December 22, 1993

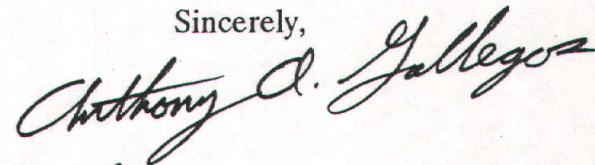
R647-4-115 Confidential Information


The Division comment for the previous submission regarding identification of Confidential Information was not responded to in this submission. The Division will assume that no confidential information is contained in this submission.  
(AAG)

By letter dated April 28, 1993, the Division and Board of Oil, Gas and Mining granted Geneva Steel a time extension until December 31, 1993, to finalize the permitting process for the revised and consolidated Iron Mountain permit and post a replacement Reclamation Contract and updated surety. Given the nature and extent of the technical comments that remain outstanding, it is obvious that this deadline will now expire without these requirements being satisfied.

The Division will suspend further review of this amended Iron Mountain NOI until your response to these remaining concerns is received. Given the extent of the information which remains outstanding, we would suggest that we meet to discuss and clarify the level of detail requested under each section, prior to preparing your next response. We want to minimize the possibility of any future miscommunication or misunderstanding of our permitting requirements. After you have had an opportunity to review this document, please contact us to establish a time and date to sit down and go over it in detail. We suggest meeting no later than January 20th. During the meeting, we would hope to establish a schedule that we could jointly present and discuss with the Board of Oil, Gas and Mining, during their January 26, 1994, hearing (briefing session - 9:00 a.m.).

Sincerely,



 D. Wayne Hedberg  
Permit Supervisor  
Minerals Reclamation Program

jb

Attachment

cc: Clayton Parr - Parr, Waddoups & Gee  
Lowell Braxton  
Minerals staff (route)

Genrev.le *Geneva Pack. BLM*



Reclamation Surety Estimate  
Geneva Steel - Consolidated Mine Plan  
Iron County  
RECLAMATION CALCULATION TABLE

DRAFT  
last revision

AREA IDENTIFICATION	IM-0100-3		PERMIT
	Acres	Sheet #	
Mt. Lion pit benches	15.34	5 & 6	M/021/008-Iron Mt
Mt. Lion pit slopes	16.72	5 & 6	M/021/008-Iron Mt
Mt. Lion pit bottom	26.56	5 & 6	M/021/008-Iron Mt
Mt. Lion pit roads	6.72	5 & 6	M/021/008-Iron Mt
Mt. Lion dump top	26.52	5 & 6	M/021/008-Iron Mt
Mt. Lion dump slopes	10.23	5 & 6	M/021/008-Iron Mt
Mt. Lion dump roads/level	4.15	5 & 6	M/021/008-Iron Mt
Mt. Lion dump RR spur	5.07	5 & 6	M/021/001-Ull ?
Future Mt. Lion dump road	2.28	5	M/021/003-USX ?
Future Mt. Lion dump top	24.60	5	M/021/003-USX ?
Future Mt. Lion dump slopes	10.21	5	M/021/003-USX ?
Ant Hill area	1.64	5	M/021/003-USX ?
Comstock pit	59.28	6	M/021/005-CF&I
Comstock dump top	38.47	6	M/021/005-CF&I
Comstock dump slopes	30.83	6	M/021/005-CF&I
Comstock roads/level	13.40	6	M/021/005-CF&I
Ull-Mt. Lion/Comstock dump slopes	4.78	6	M/021/001-Ull
Ull-Mt. Lion/Comstock roads & level	5.29	6	M/021/001-Ull
Ull-Mt. Lion/Comstock pre handling-PM?	16.50	6	M/021/001-Ull
Ull roads - POST MINE USE?	9.70	6	M/021/001-Ull
Comstock dump roads - POST MINE?	7.64	6	M/021/001-Ull ?
Iron Mt. pit (Duncan pit)	4.15	2	M/021/005-CF&I
Iron Mt. dump tops	1.44	3	M/021/005-CF&I
Iron Mt. dump slopes	1.99	3	M/021/005-CF&I
Iron Mt. load out & surge pond areas	25.11	3	M/021/008-Iron Mt ?
Iron Mt. FAA road-Postmine use	2.95	3	M/021/008-Iron Mt ?
Iron Mt. FAA loop road	1.03	3	M/021/008-Iron Mt ?
Iron Mt. topsoil borrow area	1.68	3	M/021/008-Iron Mt ?
IM Blackhawk lean ore road	1.85	3	M/021/008-Iron Mt
Iron Mt. Duncan Pit Road	2.20	2 & 3	M/021/008-Iron Mt
Blowout Pit - PRE-LAW	0.00	3	M/021/008-Iron Mt
Pinto Pit - PRE-LAW	0.00	2	M/021/008-Iron Mt
Blackhawk Pit - PRE-LAW	0.00	3	M/021/008-Iron Mt
Blackhawk lean ore road	2.82	2	M/021/008-Iron Mt
Blackhawk lean ore pile	8.85	2	M/021/008-Iron Mt
Blackhawk lines area & road	2.92	2 & 3	M/021/008-Iron Mt
Excelsior/Chesapeake pit	3.00	4	S/021/010-Excel/Chesa
Excelsior/Chesapeake road	2.00	4	S/021/010-Excel/Chesa
Excelsior/Chesapeake dump top	1.82	4	S/021/010-Excel/Chesa
Excelsior/Chesapeake dump slope	1.15	4	S/021/010-Excel/Chesa
Tip Top dump top	0.87	4	NO PERMIT
Tip Top dump slopes	2.17	4	NO PERMIT
Tip Top FAA road reduction(7,600LF*)	4.40	4*	NO PERMIT
Burke Pit road	3.19	2	M/021/008-Iron Mt ?

TOTALS => 412.32  
Acres

Geneva submission Total area = 407.47

Seed Mix: AN: As Necessary Percent of total \$=>  
1-C.F.&I/USX WF: Where feasible  
2-Utah Intl. R: Dump crests rounded  
3-New Area  
4-Blackhawk

\*NOTES\*

-shaded items were added or modified by the Division  
\*Length measured on IM-0100-4, sheets 1 & 2